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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,956

05/10/2006

David Boswell

2009_0553

8651

513 7590 07/30/2010

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EXAMINER

NGUYEN, ANTHONY H

ART UNIT

PAPER NUMBER

2854

NOTIFICATION DATE

DELIVERY MODE

07/30/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/578,956	Applicant(s) BOSWELL ET AL.	
	Examiner ANTHONY H. NGUYEN	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 20, 23, 24, 36, 38 and 53-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 20, 23, 24, 36, 38 and 53-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 14, 2010 has been entered.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 20, 23, 24, 36, 38 and 53-67 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over D' Amato et al. (US 4,933,120) in view of Rick et al. (US 5,981,040).

With respect to claims 11, 23, 53, 64 and 66, D' Amato et al. teaches a method for forming a hologram having steps of applying a curable compound (liquid resin material 69) to at least a portion of a substrate 11, contacting at least a portion of the curable compound with a diffraction grating forming means 61 (Fig.3, col.5, lines 24-40), curing the curable compound

Art Unit: 2854

via a radiation source 79, depositing a thin metallic layer on the at least a portion of the cured compound (col.6, lines 19-36).

D' Amato et al. does not clearly teach the step of depositing a metallic ink on the cured compound.

Rick et al. teaches the use of conventional metallic ink 16 which is deposited on a curable coating 14 on a substrate 12 (Fig.1, cols.3 and 4, second paragraphs).

In view of the teaching of Rick et al., it would have been obvious to one of ordinary skill in the art to modify the method of forming a hologram of D' Amato et al. by substituting the step of depositing metallic ink as taught by Rick et al. in place of the step of depositing the thin metallic layer 40 of D' Amato et al. for the purpose of providing a metallic ink for the intended printing since one of ordinary skill in the art would have been able to carry out such a substitution, and the results were reasonably predictable. Additionally, the metallic ink that has a thickness or an optical density when deposit on a substrate in the range of light transmission and permits a transmission of light passing through would be obvious through routine experimentation depending upon a substrate to be printed and the type of metallic ink to be used for printing to obtain a desired optical effects.

With respect to claims 20, 24, 56, 57, 65 and 67, the selection of a desired range of thickness of pigment particles and the optical density so that the percent of light transmission can go through would be obvious through routine experimentation depending upon the use of a substrate to be printed and the type of metallic ink to be used for printing to obtain a desired optical effects.

Art Unit: 2854

With respect to claim 36, the use of a lacquer which is a curable composition is conventional as exemplified by Rick et al. that teaches the curable composition which comprises lacquers (col.4, lines 19-24).

With respect to claim 38, D' Amato et al. teaches an ultraviolet radiation or light that can alternatively be used to cure the resin or curable composition (col.6, lines 13-18).

With respect to claims 54, 55 and 58, Rick et al. teaches the metallic ink which comprises metal pigment particles such as aluminum and binder (the abstract and col.3, lines 16-36).

With respect to claims 59 and 62, Rick et al. teaches the step of depositing by printing including gravure printing (col.3, lines 11-15), and Amato et al. teaches that the depositing is by printing via an anilox roll 71 and a transfer roll 73 (Fig.3 and col.5, third paragraph).

With respect to claims 60 and 61, D' Amato et al. teaches the hologram 15 (Fig.8) which is viewable from at least one surface (col.2, lines 32-41 and col.3, third paragraph).

With respect to claim 63, the use of an electron beam to cure a curable composition is well known in the art as exemplified by Rich et al. For example, Rick et al. teaches the use of electron beam to cure an electron beam-curable gloss coat (col4, lines 54-62).

Response to Arguments

Applicants' arguments filed on July 30, 2009 have been fully considered but they are not persuasive in view of the new ground(s) of rejection(s).

Conclusion

The patents to Miyano, Jacobsen et al. and Scarbrough et al. are cited to show other methods having obvious similarities to the claimed method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Nguyen whose telephone number is (571) 272-2169.

The examiner can normally be reached daily from 9 AM to 5PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen, can be reached on (571) 272-2258.

The fax phone number for this Group is (571) 273-8300.

/Anthony H Nguyen/
Primary Examiner, Art Unit 2854